## Example conversation

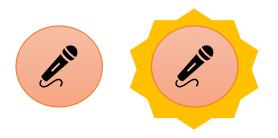
The following is merely an example of how a conversation with the chatbot might develop. It is intended only to make the task easier to imagine before a full set of prompts can be written and the systems developed. This example does not contain all the types of input and output that could be expected and are contemplated in the conversation diagram, but it aims to at least showcase a "happy path" that the conversation could take. As an ideal example, it presupposes that the system has robust NLU and sufficient data to return adequate responses, be it through retrieval or generation.

This example shows some possible features of the interface, though it should by no means be considered a final design, as tests are needed to select the most appropriate features. The conversation in the example is conducted under the premise that the interface would consist of more than the chat window: namely, there would also be a text window to display the task text more conveniently, as well as a diagram window with the tools to draw a diagram of the argumentation. Similar tools already exists, such as LARGO (Pinkwart, 2008), and those could be used as a better reference for the design of this part of the application.

The language used throughout this example is intended to follow general conversation design guidelines (Google, n.d.), as well as insights gathered from the literature. Nonetheless, of course, a Wizard of Oz study would be necessary to test students' response to the prompts and make whichever adjustments were necessary.

In this example, the greeting omits asking the student their name – this information could be gathered by having the student log into the application. We have opted for this method to increase student accountability and keep track of application use, which could reinforce this accountability and also provide useful information to teachers – eventual tests may shed light on whether this decision achieves the desired results or whether another approach is needed.

The speech bubble styles and shapes are used throughout this document to mean:



This is the button to switch the microphone on and off. When the microphone is in, the button flashes (as represented by the yellow glow on the second version of the button)

The dialogue system is talking

This is a button the student can click on to select a response

The dialogue system is giving the student a text to read

The student is talking



This is a drop-down menu where the student has selected the option being shown



The student has clicked on the button that this hand is pointing to



This is a button that the student can click on to return to the beginning of the argumentation

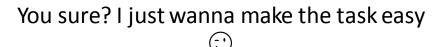


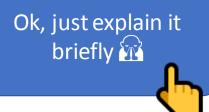
This is a button that the student can click on to get some help to come up with arguments

Hi, Timmy! I'm Robosan and I'm going to guide you through a task that will help you ace argumentation. But we'll go step by step, don't worry. Let me show you what we'll do.



It's alright, I've already done this before





I pinky-promise I already did this before ©

Okay. First, the technical details: you'll sometimes need to answer by simply selecting from a couple of options, to make communication easier

Other times you'll be able to talk more normally, whenever you see a microphone button. Use it to turn the microphone on and off to talk to me...or you can just type if you prefer  $\bigcirc$ 





And about the task: first you'll read an argumentative text from the SAT. I'll be listening! ①

Then I'll ask you to point to the paragraphs with the thesis and arguments.

After that, I'll ask you to put that information into your words to make sure you understand it well. I'll give you feedback to guide you ⓒ

Later you'll be able to tell me your opinion on the text, but I'll explain that part later ©

Okay, seems easy enough ©



Wait, can you explain that again?

Great! Let's begin. I'm going to give you an argumentative SAT text. You can access it anytime on the TEXT tab... but now let's read it together © I gotta check that you don't skip the reading!

Let's get reading ©

Take me to the TEXT window first



Alright! I'll show you the text paragraph by paragraph, and you simply have to read them. I'll only give you a new paragraph after I've heard you read the latest one. Give it your best!

HOW serious are we, really, about tackling income equality? . . .



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More than a half-century after President John F. Kennedy signed the Equal Pay Act of 1963, the gap between what men and women earn has defied every effort to close it. And it can't be explained away as a statistical glitch, a function of women preferring lower-paying industries or choosing to take time off for kids.



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Claudia Goldin, a labor economist at Harvard, has crunched the numbers and found that the gap persists for identical jobs, even after controlling for hours, education, race and age. Female doctors and surgeons, for example, earn 71 percent of what their male colleagues make, while female financial specialists are paid just 66 percent as much as comparable men. Other researchers have calculated that women one year out of college earn 6.6 percent less than men after controlling for occupation and hours, and that female M.B.A. graduates earn on average \$4,600 less than their male classmates for their first jobs.



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It's not that men are intentionally discriminating against women—far from it. I've spent the past year interviewing male executives for a book about men and women in the workplace. A vast majority of them are fair-minded guys who want women to succeed. They're absolutely certain that they don't have a gender problem themselves; it must be some other guys who do. Yet they're leaders of companies that pay men more than women for the same jobs.



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Women are trying mightily to close that chasm on their own. Linda Babcock, an economist at Carnegie Mellon and co-author of the book "Women Don't Ask," has found that one reason for the disparity is that men are four times more likely to ask for a raise than women are, and that when women do ask, we ask for 30 percent less. And so women are told we need to lean in, to demand to be paid what we're worth. It's excellent advice—except it isn't enough.



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There is an antidote to the problem. Britain recently introduced a plan requiring companies with 250 employees or more to publicly report their own gender pay gap. It joins a handful of other countries, including Austria and Belgium, that have introduced similar rules. (In the United States, President Obama last year signed a presidential memorandum instructing federal contractors to report wage information by gender and race to the Department of Labor.) The disclosures "will cast sunlight on the discrepancies and create the pressure we need for change, driving women's wages up," Prime Minister David Cameron said last month.



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But real-world results suggest otherwise. Last year, the consulting firm PricewaterhouseCoopers voluntarily released its gender pay gap in Britain, one of five firms in the country, including AstraZeneca, to do so. Simply saying the number out loud "created much more momentum internally" to close it, Sarah Churchman, who runs the firm's British diversity and inclusion efforts, told me.



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PricewaterhouseCoopers's analysis showed that most of its 15.1 percent pay disparity (compared with a Britain-wide gap of more than 19 percent) reflected a lack of women in senior jobs. So the firm focused on whether it was promoting fairly. In 2013, the grade just below partner was 30 percent female, yet only 16 percent of those promoted to partner were women. A year later, the percentage of women promoted to partner had more than doubled..



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The potential cost savings of publishing the gender wage gap are enormous. About 20 percent of large companies now train employees to recognize unconscious bias, spending billions of dollars to try to stamp out unintentional discrimination. Paying for a salary analysis is cheaper and potentially more effective. Evidence also suggests that less secrecy about pay results in greater employee loyalty and lower turnover. . . .



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Political realities being what they are, the chances of achieving [full] transparency are slim; even the tepid C.E.O. pay gap rule took the S.E.C. five years to push through, in the face of fierce industry opposition.



Creak creak...

Mmm, I'm not hearing anything from you % I'll give you the text again.

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Political realities being what they are, the chances of achieving [full] transparency are slim; even the tepid C.E.O. pay gap rule took the S.E.C. five years to push through, in the face of fierce industry opposition.

But why would we not want a measure that will settle the controversy over the pay gap with quantifiable facts? Shining some much-needed sunlight on the gender wage gap will make a difference for every one of us, men and women, right now.



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Good job! (a) Now take a look at the text ... Which paragraph contains the author's thesis? Select the paragraph number (if it appears in more than one, just pick one (a))

What do you mean by "THESIS"?

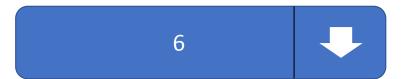




The thesis is where the author states their position on a topic - it can also be called their main claim. Maybe they're defending an idea, or they are advocating for a specific course of action. Try to find that in the text.

5

Are you sure? Maybe there's a bit of the thesis there, but I think this paragraph is more about **describing the issue** [Despite good intentions from men and efforts by women, there is a gender gap in salaries]. Look for something more explicit ①



Well spotted! And how does the author defend this position? If they emphasize one argument over others, select that one. Otherwise, pick any paragraph where they present their arguments.

Good job! • Now let's see what you gathered from the text. Could you put the ideas you just spotted into your own words? Basically: what is the author defending and which main argument do they use to back that?



companies that know they have a gender gap feel more pressure to end it

You seem to be on the right track (2) But I think you're focusing on the arguments and forgetting about the thesis. Remember all the apragraphs you selected on the previous exercise! Give it another try



Making companies say how much they pay men and women will raise awareness about sexist policies

Excellent! (a) I think you're ready for the next exercise (b)



Good job! Could you put that info in your own words? Basically: what is the author defending and which main argument do they use to back that?



companies that know they have a gender gap feel more pressure to end it

You seem to be on the right track © But I think you're focusing on the arguments and forgetting about the **thesis**. Remember all the paragraphs you selected on the previous exercise! Give it another try



Making companies say how much they pay men and women will raise awareness about sexist policies

Excellent! (a) I think you're ready for the next exercise (b)

Now you'll be the one presenting your own arguments! But we'll do that step by step © I'll be guiding you

Awesome, I'm ready!

Mmm...can you give me more details about the task?

Sure, no problem First I'll ask you if you agree with the author. It's okay if you're not sure, I can give you some info to help you defend a position.

Then you can tell me an argument for the position you selected. I can also help you there ©

I'll see if I have any counterarguments, and hopefully you can make a rebuttal, but it's not essential.

You'll just have to keep thinking of arguments and maybe rebuttals until you have a robust argument... and then you can put that into a nice diagram to use in your essays or class debates

I'm ready to begin now ☺



So now it's time for you to tell me your opinion about the topic of the text. Do you agree with the author that having companies report their gender gap can help reduce this gap?



It's okay if you don't have a clear idea Maybe taking a look at this link can help you make up you mind:

<a href="https://en.wikipedia.org/wiki/Gender pay gap">https://en.wikipedia.org/wiki/Gender pay gap</a>
It's also okay if you are not entirely convinced by either side of the argument, we'll just explore ideas and hopefully learn something III</a>

Alright, let's say I kinda AGREE with the author for now

Well, let's say I DISAGREE with the author for now Good. Now tell me, which argument can you think of to defend your position?

 If going through the ideas you change your mind, you can click on the return button and restart your argumentation



 If you don't know what to say, you can click on the lightbulb button to get some resources to inspire you









Publishing reports does nothing. There already is a global gender gap report and nobody cares about it. It's not like people don't know there's a gender gap, they just don't wanna do anything about it.

You make a good point, but what do you think about this?

Many people argue that the gender pay gap is a "a feminist myth", so they would need to see reliable reports to see if it exists.

Got a rebuttal against that?





Yes

No, I got nothing to respond to that

Go ahead then! 😊



There already seems to be sufficient evidence of the gender gap in general to at least know it's real, so the people who still call it a myth don't do it for lack of evidence, but because they just don't wanna believe it.

Fair enough. Got another argument to make your case stronger? Tell me ©







What do you think of the arguments that the author used? If you're defending the opposite view, maybe you can defend your position with a rebuttal of some of those arguments.







Well, the author mentions some companies where reporting the gender gap gave good results, but it's probably because there were already good intentions in those companies. If the gender gap exists it is because those good intentions are pretty rare in society, so giving people more data about how women are paid less won't work most of the time.

Alright, that's an interesting point. But I have a counterargument for that:

Women account for around half the population, so they could account for around half of consumers. Even if many companies don't care much about their sexist practices, they'll probably care about their reputation, as a bad reputation could translate in fewer customers.

Can you think of a rebuttal for that?





Yes

No, I got nothing to respond to that It's okay. But maybe you can think of another argument for your main claim? Give it a try!







Mmmm, the gender gap exists because the dickheads in power want to stay in power and give nothing to women.

They're just gonna wipe their ass with all the reports, cos they have the power to ignore women.

Hey! Remember to speak respectfully! Otherwise you undermine your own arguments. You can surely do better. Try again.







Ok...The gender gap exists because men are in power and want to stay in power.

Reports are not powerful enough to change the way the world has worked for ages.

Okay...You've left me speechless. I have no counterargument against that.

We've gathered quite a few arguments already, possibly enough to make a strong case ♣ Do you want to end it here and organize your thoughts into a graph?

Yeah, let's do the GRAPH Noo, I'm on fire! 
I have more arguments

Alright, I'll take you to the GRAPH tool. There you'll have everything you need The window has a help function if you want me to show you how the graph tool works or give you tips on how to build your graph

Btw, it's been a pleasure talking to you. I hope I'll see you again soon! 😂

To the GRAPH window